

**AMENDMENT TO THE CLAIMS:**

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (original) Process for the preparation of a shaped part of an ultrahigh molecular weight polyethylene (UHMWPE) by heating the UHMWPE to a temperature above the melting temperature, shaping the resulting melt, and cooling the melt to a temperature below the melting temperature, wherein
  - a) the UHMWPE has a weight average molecular weight (Mw) of at least  $1 \times 10^6$  g/mol,
  - b) during the shaping the storage plateau modulus (G\*) of the UHMWPE is kept at a value of at most 1.5 MPa,
  - c) whereafter, before the cooling, the G\* is raised to its final value.
2. (currently amended) Process according to claim 1, ~~wherein comprising heating the UHMWPE at a heating rate ( $\Theta$ ) which~~ is at most 1 K/minute, as of a temperature of 350K.
3. (currently amended) Process according to ~~claim 2~~ claim 1, comprising heating the UHMWPE at a heating rate ( $\Theta$ ) which is at most 5 K/minute.
4. (original) Process according to claim 2, wherein the MWD is between and inclusive 1.2 -3.0.
5. (currently amended) Process according to ~~any one of claims 1-3~~ claim 1, wherein the initial value of G\* is at most 0.75 MPa.
6. (currently amended) Process according to ~~any one of claims 1-5~~ claim 1, wherein G\* builds up to a value of 1.5 MPa at a speed ( $\Psi$ ) less than 3 MPa/hour.

7. (original) Process according to claim 6, wherein  $\Psi$  is less than 0.5 MPa/hour.
8. (currently amended) Process according to ~~anyone of claims 1-7~~ claim 1, wherein the UHMWPE is obtained through a solution or suspension polymerization at a temperature of between 225 and 325 K, using an unsupported catalyst in a concentration of less than  $[1 \times 10^{-4}]$   $1 \times 10^{-4}$  mol/L.
9. (currently amended) Process according to ~~anyone of claims 1-8~~ claim 1, wherein the UHMWPE is either a homopolymer of ethylene, or a copolymer of ethylene with another  $\alpha$ -olefin or cyclic olefin.
10. (original) Process according to claim 8, wherein the polymerisation takes place at a temperature between and inclusive 260 and 305 K.
11. (currently amended) Process according to ~~anyone of claims 1-10~~ claim 1, wherein the UHMWPE is annealed during the heating, at a temperature of not less than 398 K and not more than 410 K.
12. – 14. (canceled)